

5.1 Vault Airlock Preparation (continued)

- [14] **IF** the ASRF MDA are to be used,
THEN request that the Process Specialist configure the area doors to provide an airflow of 50 linear ft/min averaged across the process area, using directions from Technical Support personnel and 4-M78-776-ASRF-001, ASRF Airlock Operations.

5.2 Headspace Gas Sampling and Drum Venting

This is a stand-alone section and may be performed independently or in conjunction with other Instruction sections.

Technical Support Personnel or Supervisor

- [1] Ensure that all prerequisites in Section 4, Prerequisite Actions, have been completed, and document on Appendix 1, Procedure Checklist.

Waste Technician

- [2] Record the gas meter calibration due date and identification number on Appendix 1, Procedure Checklist.
- [3] Select one waste drum from the ASRF or SRV preparation area.
- [4] Remove the waste drum folder from the top of the drum and give it to the Technical Support personnel or supervision, as required.
- [5] **IF** any unusual or unexpected conditions are encountered,
THEN:
- [A] Immediately cease operations.
- [B] Contact Technical Support personnel or supervision for guidance, as required.

Technical Support Personnel or Supervisor

- [C] Contact Shift Manager.

5.2 Headspace Gas Sampling and Drum Venting (continued)

NOTE *The removal of the carbon filter Tamper-Indicating Device (TID) may be required for the headspace gas sampling through the drum lid filter.*

[6] **IF** the SRV Airlocks are to be used,
THEN move the selected waste drum from the SRV preparation area to the SRV Airlock, as directed by Technical Support personnel.

[7] **IF** the ASRF MDA is to be used,
THEN request that the Process Specialist move the waste drum into the ASRF MDA in accordance with 4-M78-776-ASRF-001, ASRF Airlock Operations and guidance from Technical Support personnel.

Waste Technician

[8] **IF** the following conditions exist:

- The drum is already vented (i.e., the drum lid is equipped with a drum lid filter) and/or the rigid liner lid has been vented as indicated by the V&A stamp on the drum label or the drum traveler.

THEN:

[A] Place the drum in the airlock/area

Analytical Laboratory Support Personnel

[B] Collect headspace gas samples through the drum lid filter in accordance with L-4146, Headspace Gas Sampling of Waste Containers, and as directed by Technical Support personnel.

Technical Support Personnel

[C] Document the drum headspace gas sample start time and date on the following, as applicable:

- WIPP Sample Drum Log (See Appendix 3, WIPP Sample Drum Log, sample.)
- Daily Drum Log

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5.2 Headspace Gas Sampling and Drum Venting (continued)

Waste Technicians

[D] Process the drum by following Section 5.5, Rigid Liner Venting and Verification, of this procedure.

[9] **IF** the drum is vented but does **NOT** meet the following condition:

- The rigid liner lid has been vented as indicated by the V&A stamp on the drum label or the drum traveler.

THEN proceed to Section 5.5, Rigid Liner Venting and Verification.

[10] **IF** the waste drum is a non-vented drum, (i.e., the drum lid is not equipped with a drum filter),

THEN:

[A] Move the drum punch or the drum lid retaining device to the designated Airlock/Area, as directed by Technical Support personnel.

[B] Inspect the waste drum for signs of pressurization (such as a rounded bottom, a bulging lid, or a bulging drum seam).

[C] **IF** the waste drum shows signs of pressurization,
THEN contact Technical Support personnel or supervision for guidance.

Procedure 1-62200-HSP-21.03, Hazardous Waste Operations and 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, provide guidance in the event that a waste drum shows signs of pressurization.

[D] Place the drum scheduled for venting in the drum punch or the drum lid retaining device.

[E] Secure the drum in accordance with instructions from Technical Support personnel.

[F] Attach the grounding strap to one of the following as designated by Technical Support personnel:

- Waste drum
- Drum punch
- Drum lid retaining device

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5.2 Headspace Gas Sampling and Drum Venting (continued)

- [G] Place the drum punch in the guide hole as designated by Technical Support personnel.

WARNING

Personnel performing gas-sampling or drum venting or aspirating are NOT to be positioned in the air path as it flows across the drum lid (upwind or downwind). Personnel should be positioned out of the air path to the sides of the drum, to lessen the chance of contamination.

Analytical Laboratory Support Personnel

- [H] IF gas sampling is to be performed as designated by Technical Support personnel,

THEN:

- [a] Take the headspace gas sample prior to the removal of the waste drum lid in accordance with L-4146, Headspace Gas Sampling of Waste Containers, as directed by Technical Support personnel.

- [I] IF venting is to be performed as designated by Technical Support personnel, THEN use the punch tool or brass hammer to drive the brass punch into the drum lid, as applicable.

WARNING

Care should be taken not to generate sparks when removing the waste drum from the drum punch or the drum lid retaining device due to the potential of an explosive gas mixture.

- [J] Carefully remove the drum punch from the drum hole, as applicable.
- [K] IF Technical Support personnel determine that more holes are to be punched in the drum lid, THEN:
- [a] Move the drum punch to the designated location on the drum lid.
- [b] Use the punch tool or brass hammer to drive the brass punch into the drum lid, as applicable.
- [c] Repeat Steps [a] and [b] as necessary.

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APPENDIX 3

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WIPP SAMPLE DRUM LOG
TRU Waste Characterization Program

1. DRUM INFORMATION

Drum Number:

2. HEADSPACE GAS SAMPLING EQUILIBRATION INFORMATION

| | Date | Time | Recorder | Verifier |
|------------------------|------|------|----------|----------|
| Received | | | | |
| 33 hr. equilibration | | | | |
| Headspace Gas Sampling | | | | |

3. DRUM AND RIGID LINER VENTING INFORMATION

Was drum (as received) equipped with a drum filter?

☐ Yes

☐ No

If no, Drum Vent Start (i.e., Filter Installation)

Date:

Verification of Rigid Liner Venting (Check the appropriate box –one box only)

V&A Date

- ☐ 1. Sample through filter – then record V&A date found on drum label or Traveler.
- ☐ 2. Sample through filter – then visually verify rigid liner as vented.
- ☐ 3. Sample through rigid liner – then vent rigid liner.
- ☐ 4. Drum not sampled. Hold until drum meets the age criteria for sampling.
- ☐ 5. Reverify rigid liner as vented – sample not taken. Document findings in comment section.
- ☐ 6. Sample through filter – no rigid liner present.

Signature

Date

Recorded By:

Verified By:

4. SUPERVISION RELEASE

Ensure this form is properly completed an that WEMS has been updated.

Signature

Date

Supervisor:

Comments:

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